What is claimed is:

1. A method for determining the signature of an entity, the method comprising:

ascertaining at least one signature per-unit-area value for said entity; and

modeling said entity, said modeling including regionalizing said entity so as to be indicative of said at least one per-unit-area signature value.

2. The method according to claim 1, wherein:

for each said signature per-unit-area value, said ascertaining includes:

one of measuring the signature of a representation of said entity and calculating the signature of a representation of said entity; and

calculating said signature per-unit-area value as a function of aspect angle and frequency; and

said regionalizing includes effecting a plurality of three-dimensional scattering elements, each said three-dimensional scattering element having associated therewith a said signature per-unit-area value.

3. The method according to claim 1, wherein said signature is selected from the group consisting of electromagnetic signature and acoustic signature.

4. The method according to claim 1, wherein said signature is an

electromagnetic signature, and wherein said electromagnetic signature is a radar signature.

5. The method according to claim 1, wherein the method comprises summing said three-dimensional scattering elements as a function of azimuth and frequency.

6. The method according to claim 5, wherein said signature is selected from the group consisting of electromagnetic signature and acoustic signature.

7. The method according to claim 5, wherein:

said signature is an electromagnetic signature;

said electromagnetic signature per-unit-area value is a function of aspect angle and frequency; and

said signature per-unit-area value is an electromagnetic signature per-unit-area value.

8. The method according to claim 7, wherein, for each said electromagnetic signature per-unit-area value, said ascertaining includes:

(a) one of :

(i) measuring the signature of a representation of said entity, and

(ii) calculating the signature of a representation of said entity; and

(b) calculating said signature per-unit-area value as a function of aspect angle

and frequency.

9. The method according to claim 8, wherein said electromagnetic signature per-unit-area value is an electromagnetic cross-section per-unit-area value.

10. The method according to claim 7, wherein said electromagnetic signature is a radar signature, and wherein said electromagnetic signature per-unit-area value is an radar signature per-unit-area value.

11. The method according to claim 10, wherein:

said radar signature per-unit-area value is a radar cross-section per-unit-area value;

for each said radar cross-section signature per-unit-area value, said ascertaining includes measuring the radar cross-section signature of a representation of said entity, and calculating said radar cross-section signature per-unit-area value as a function of aspect angle and frequency; and

said regionalizing includes effecting a plurality of three-dimensional scattering elements, each said three-dimensional scattering element having associated therewith a said radar cross section signature per-unit-area value.

12. The method according to claim 5, wherein:

said signature is an acoustic signature;

said acoustic signature per-unit-area value is a function of aspect angle and frequency; and

said signature per-unit-area value is an acoustic signature per-unit-area value.

13. The method according to claim 12, wherein:

said acoustic signature per-unit-area value is an acoustic target strength per-unit-area value;

for each said acoustic target strength per-unit-area value, said ascertaining includes measuring the acoustic target strength of a representation of said entity, and calculating said acoustic target strength per-unit-area value as a function of aspect angle and frequency; and

said regionalizing includes effecting a plurality of three-dimensional scattering elements, each said three-dimensional scattering element having associated therewith a said acoustic target strength per-unit-area value.

14. A method for determining the signature of a target object, said method comprising extrapolating signature information from a sample object to said target object, said extrapolating comprising evaluating the signature per unit area of said sample object as a function of aspect angle and frequency, generating a computer model of said target object, and incoherently summing three-dimensional scattering elements as a function of azimuth and frequency, wherein said computer model represents said target object as including said plural three-dimensional scattering

elements each of which is characterized by said incoherent signature cross-section per unit area.

15. A method as recited in claim 14, wherein said signature is an electromagnetic signature, and wherein said signature per unit area is an electromagnetic signature cross-section per unit area.

16. A method as recited in claim 14, wherein said signature is a radar signature, and wherein said signature per unit area is a radar cross-section per unit area.

17. A method as recited in claim 14, wherein said signature is an acoustic signature, and wherein said signature per unit area is an acoustic target strength per unit area.

18. A method for determining the radar signature of a target object, said method comprising:

rendering a sample object so as to be characterized by the same material as said target object;

performing an estimation of said radar signature of said sample object;

based on said performing of an estimation, calculating a radar cross-section per-unit-area value for said sample object as a function of aspect angle and

frequency;

modeling said target object, said modeling including representing a plurality of three-dimensional elements and assigning a said radar cross-section per-unit-area value to each said three-dimensional scattering element; and

performing a summation of said three-dimensional scattering elements as a function of azimuth and frequency.

19. A method as defined in claim 17, wherein said sample object has a shape selected from the group consisting of:

scale model of said target object; and

flat plate.

20. A method as defined in claim 17, wherein said performing of an estimation of said radar signature of said sample object includes at least one of:

obtaining a measurement of the monostatic backscattering radar cross-section of said sample object; and

obtaining a high-fidelity prediction of the monostatic backscattering radar cross-section of said sample object.

21. A method as defined in claim 17, wherein said performing of a summation of said three-dimensional scattering elements includes performing an incoherent summation of said three-dimensional scattering elements.